

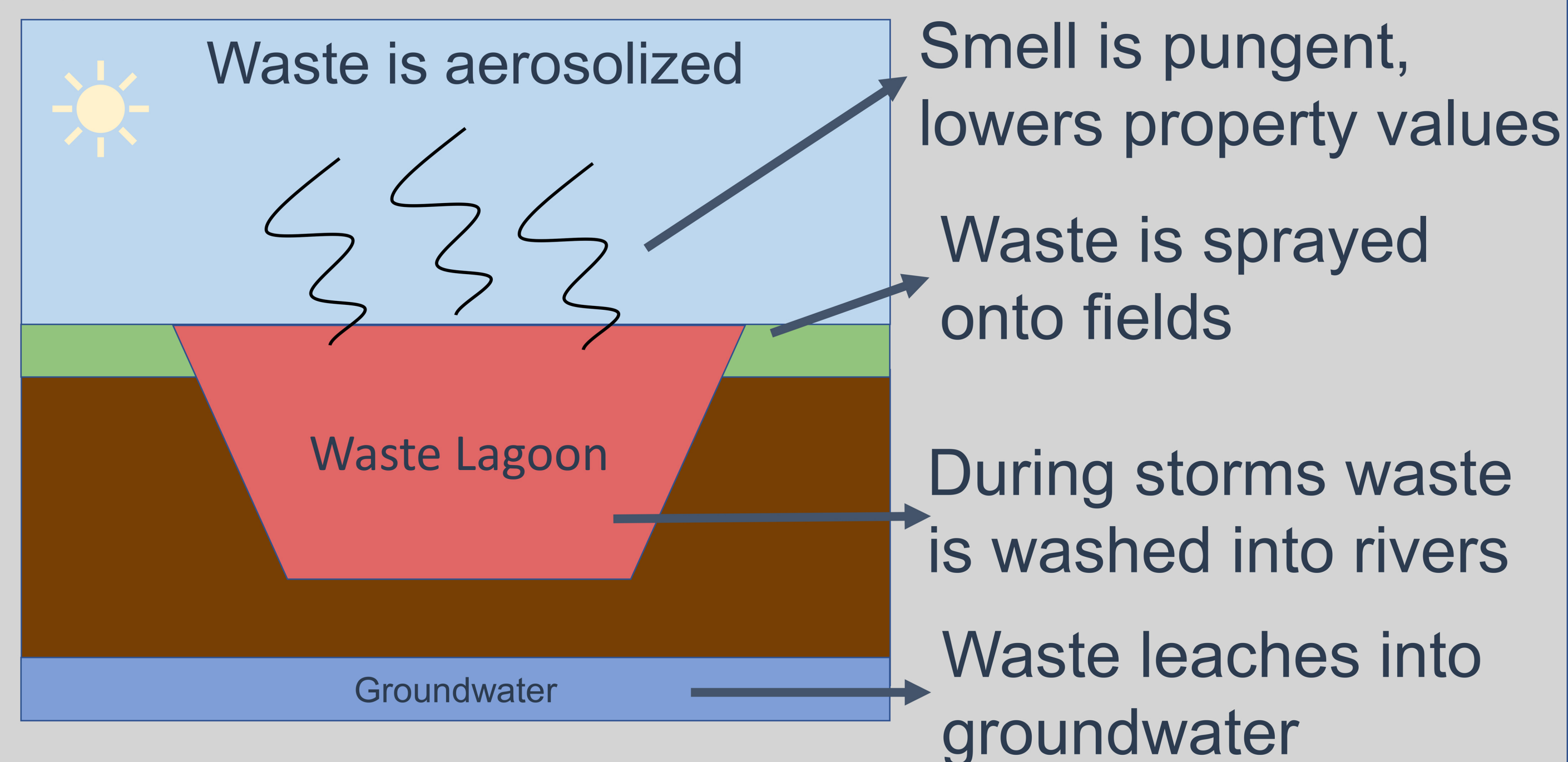
Hog Waste Contamination in North Carolina

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Problem

Improperly stored hog waste contaminates North Carolina's ground and river water leading to health issues for its residents.

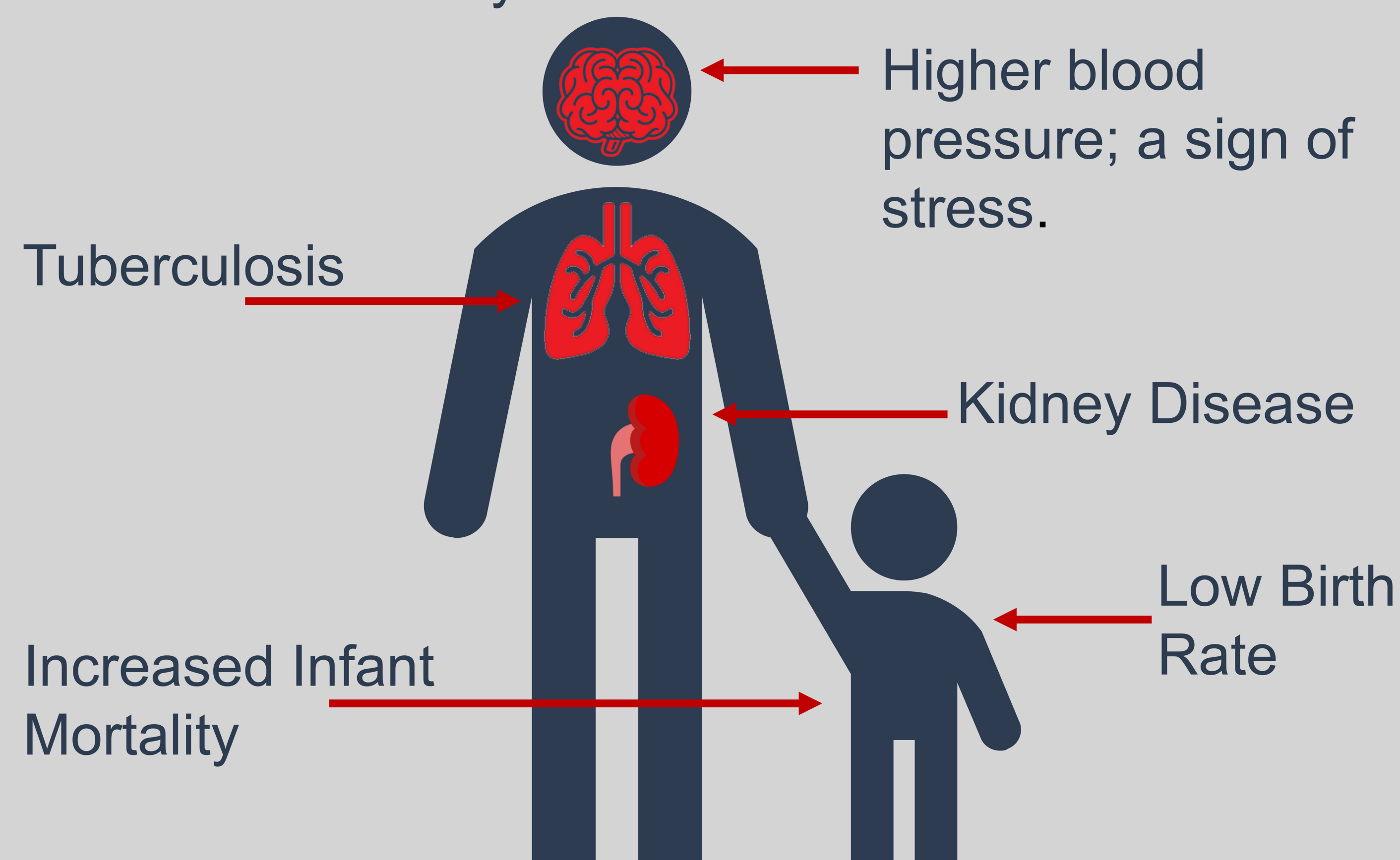


Water leaking out of waste pit due to flooding

Cropped photo from Rick Dove of the Waterkeeper Alliance after Hurricane Matthew.

Health Effects

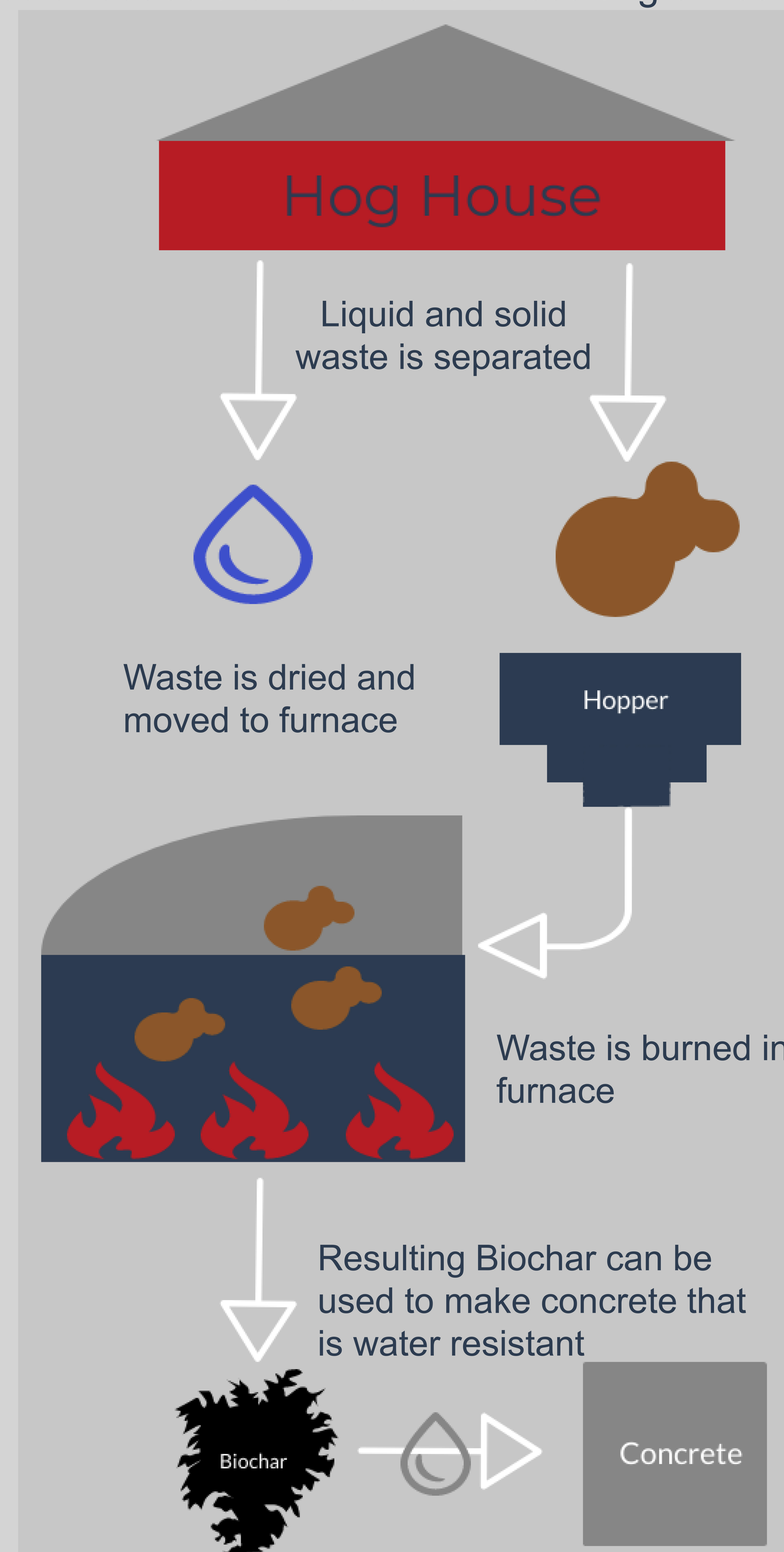
High nitrate concentrations in water and aerosolized waste causes health problems for the surrounding areas. The predominantly impoverished, minority area relies heavily on well water.



Solution

Thermal Gasification Process

The waste will be burned using Thermal Gasification. The resulting biochar will be used to produce water-repelling concrete. Carbon Sequestration in the soil could reduce the effects of the resulting emissions.



Implementation



Label added to pork packaging that indicates a farm with a waste management system that does not contaminate the water.



Water is tested for pig fecal matter through a third-party verification, such as the waterkeepers.



The economic incentive caused by the watersafe label reduces the cost of implementing the Thermal Gasification methods.



Monitoring the water in the following years could determine if pig fecal matter is reduced from the water.

Key References:
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